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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,654	11/15/2000	Jonathan Sidney Edelson		3701

7590 09/26/2002
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EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/713,654

Applicant(s)

EDELSON

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 09 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34,40-45,47-59,64-84 and 88-107 is/are pending in the application.
- 4a) Of the above claim(s) 68-82 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34,40-45,47-59,64-67,83,84 and 88-107 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 34, 40-45, 47-59, 62, 64-67, 83, 84, 88 and 89 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The abstract of the disclosure is objected to because it should be placed in a separate page. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claim 42 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 42 depends on claim 35 which was canceled. It is considered that claim 42 is dependent of claim 41.
4. Claim 67 is objected to because of the following informalities: replace "inductors" with – inductor – in line 2. Appropriate correction is required.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "S+1 inverter terminals distant from the first inverter terminal" and "the first and second inverter terminals" recited in claims 34 and 83 must be shown or the feature(s) canceled from

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the claim(s). No new matter should be entered. Other features (but not limited to) include:

- A receptor in claim 59.
- Windings comprising single inductor in claim 67.
- Harmonic frequency components in claims 43, 45, 91-97 and 101-107.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 34, 40-45, 47-59, 62, 64-67, 83, 84, 88 and 89 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification and drawings do not clearly show the motor phase connected to first and second inverter terminal S +1 inverter terminals distant from the first inverter terminal. The drawings do not specifically show "the first and second inverter terminal" (of the inverter?). Figures 2A-2E only show the single dots "2". It is not clear what the "first and second inverter terminals" are in these Figures. It is neither clear if the inverters have more than two terminals (i.e. first and second).

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8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 34, 40-45, 47-59, 62, 64-67, 83, 84, 88 and 89 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As discussed above, the specification and drawings do not clearly show the motor phase connected to first and second inverter terminal S +1 inverter terminals distant from the first inverter terminal. The drawings do not specifically show "the first and second inverter terminals" (of the inverter?). Figures 2A-2E only show the single dots "2". It is not clear what the "first and second inverter terminals" are in these Figures. It is neither clear if the inverters have more than two terminals (i.e. first and second). There is an omission of the essential structural cooperative relationships of elements.

In addition, there are many problems in the claims (but not limited to) such as:

- Lacking of antecedent basis in claim 67 for "said winding" in line 2.
- If N is 4 in claim 50, S is 0.5. How can the connections be carried out?
- N is not defined in claims 84 and 89.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 34, 40, 43, 45, 48, 58, 62, 83, 88 and 91-97 are rejected under 35 U.S.C. 102(e) as being anticipated by Isozaki et al.

Regarding claims 34 and 83, Isozaki et al. show a high phase order induction machine (5 phases, Figure 17) comprising an inverter system (Figure 17) and an induction motor (Figure 13) having N phases ($N = 5$ phases), each motor phase is connected to a first and second inverter terminals S+1 inverter terminals ($S = 0$, Figure 17) distant from the first inverter terminal, and the phase angle difference between the pair of inverter terminals is identical.

Regarding claim 40, it is noted that Isozaki et al. also show the phase angle difference being 120 degrees.

Regarding claims 43, 45, 58 and 91-97, it is noted that Isozaki et al. also show the output containing harmonic frequency components.

Regarding claims 48, 62 and 88, it is noted that Isozaki et al. also show S being equal to zero.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 41, 42, 44, 47, 49-57, 59, 64-67, 84, 89, 90 and 98-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isozaki et al.

Regarding claims 41, 44, 47, 49-52, 54, 59, 64-67, 84, 89, 90 and 98-100, Isozaki et al. do not show the limitations in these claims. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select any skip number S, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 42, 53, 55-57 and 101-107, it is noted that Isozaki et al. also show all of the limitations of the claimed invention.

Information on How to Contact USPTO

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
September 24, 2002

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Long Lk